

Treatment of Osteoarthritis using Synvisc in New Zealand White Rabbit

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INTRODUCTION:

Osteoarthritis (OA) is a degenerative joint disease affecting millions worldwide. Synvisc[®] is widely used as a treatment for OA. This study will investigate the histological changes of OA in rabbits treated with Synvisc[®].

MATERIALS & METHODS:

Twelve rabbits underwent surgery to induce OA. The rabbits were injected with intraarticular Synvisc[®] after 3 weeks. It is divided into 4 groups of each (week 3,6,12 and 24) then euthanized according to its group. The knee joint samples were collected and underwent hard tissue processing. The specimens were stained with Masson-Goldner staining.

RESULTS:

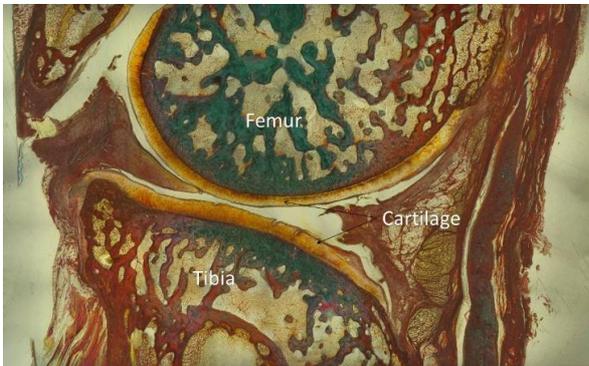


Figure 1: Treated knee with Synvisc at 6 weeks

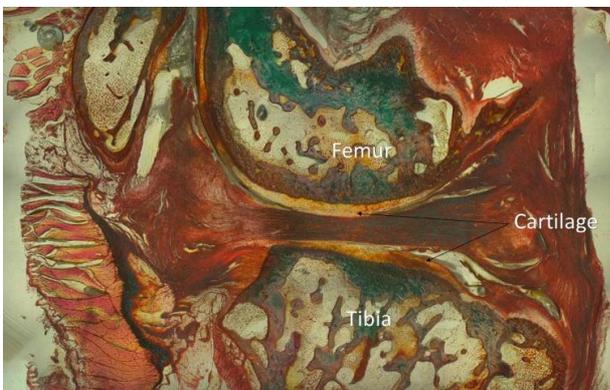


Figure 2: Treated knee with Synvisc at 12 weeks

No intraoperative complications were observed. The Synvisc[®]-treated OA knees at 6 weeks (Figure 1) and at 12 (Figure 2) exhibited no inflammation. Improvement of cartilage thickness was noted. The cartilage is thicker in 12 weeks group compared to 6 weeks group.

DISCUSSION:

Rabbits treated with Synvisc[®] showed cartilage thickness improvement and was observed at 6 and 12 weeks after treatment. Specifically, the rabbits with OA treated with Synvisc[®] improved with cartilage thickness.

CONCLUSION:

Synvisc[®] treatment showed histological improvements of OA in rabbits.

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